

REMARKS

Claims 1 to 32 are in this application.

Claim 1 has been amended to delete the phrase "sufficient period of time".

Claims 26-32 have been added. The claims have been added to include preferred parameters that were included originally in the claims from which they depend.

Other amendments were made to overcome claim objections, the rejection under 35 USC 112, second paragraph or to make other clerical and typographical corrections.

Therefore, the claim objections are moot as are the rejections under 35 USC 112, second paragraph.

Claims 1, 2, 6-8, 10-18 and 19-25 are rejected under 35 USC 103(a) as being unpatentable over Mishra (Plant Cell, Tissue and Organic Culture 73:21-35, 2003) in view of Trolinder, et al. (Plant Cell Tissue and Organ Culture 12,43-53, 1988). This is respectfully traversed.

No combination of these references teach or make obvious the claimed process. The instant invention relates to synchronized regeneration of cotton plants using tissue culture techniques. Cotton is known to be recalcitrant for regeneration using tissue culture techniques. See for example, the Gupta reference cited by the Examiner. According to the inventors there is no report on synchronized regeneration of cotton using a large number of development of somatic embryos by subjecting them to inositol deprivation/stress.

To establish a *prima facie* case of obviousness, three basic criteria must be met. See MPEP 706.02(j). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

The references cited by the Examiner do not set forth even a *prima facie* case of obviousness for the invention as claimed at least for the following reason(s).

As the Examiner notes Mishra does not teach nor suggest that the embryogenic mass/clumps are deprived of inositol for a sufficient period time before returning the embryogenic clumps to inositol containing medium for further development. The Examiner claims that Trolinder fills the gap in this teaching by referring to the disclosure on page 4, first paragraph that the embryogenic cells were then washed three times in a medium in which there is no inositol. Step v) of claim 1 of this application teaches the subculturing of the embryogenic mass/clumps in a basal medium devoid of inositol then returning the culture to inositol containing medium. Firstly, there is clear difference in washing cells with a medium and culturing them in a medium. Secondly, there is no description that Trolinder even uses inositol in any step of the process.

Therefore, based on the above, there is no combination of these references that would lead one skilled in the art to a process wherein the explant is first cultured in a culture medium containing inositol then culturing it in a medium devoid of inositol and then adding the culture to a medium containing inositol. One reference (Mishra) teaches use of inositol while a second (Trolinder) does not. Therefore, there is no way one skilled in the art considering these results would teach the process claimed in this application. It is respectfully requested that this rejection be withdrawn.

The Examiner rejects claims 3-5 and 9 under 35 USC 103(a) as applied above and further in view of Gupta (Plant Cell, Tissue and Organic Culture 51:149-152, 1997). For the reasons discussed above, the combination of Mishra and Tolinder do not teach the claimed invention. Gupta teaches *in vitro* production of multiple seed from cotyledonary nodes. There is no teaching and motivation therein either alone in combination with Mishra and Trolinder towards synchronization or for a process of inositol deprivation.

None of the three references, individually or in combination, teach or guide towards synchronized regeneration of cotton plants from tissue cultures using inositol stress. On the contrary, both Mishra and Trolinder teach asynchronous regeneration.

Accordingly, it is respectfully requested that this rejection be withdrawn.

It is submitted that the present application is in condition for allowance and favorable consideration is respectfully requested.

Respectfully submitted,



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